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- Derwent Patents Citation Index (File 342)
- Derwent World Patents Index (for users in Japan) (File 352)
- Derwent World Patents Index First View (File 331)
- Derwent World Patents Index (File 351)
- Derwent World Patents Index (File 350)
- Ei EnCompassPat (File 353)
- European Patents Fulltext (File 348)
- French Patents (File 371)
- German Patents Fulltext (File 324)
- IMS Patent Focus (File 447, 947)
- INPADOC/Family and Legal Status (File 345)
- JAPIO - Patent Abstracts of Japan (File 347)
- LitAlert (File 670)
- U.S. Patents Fulltext (1971-1975) (File 652)
- U.S. Patents Fulltext (1976-present) (File 654)
- WIPO/PCT Patents Fulltext (File 349)
- TRADEMARKSCAN - U.S. Federal (File 226)

DialogLink 5 Release Notes
New features available in the latest release of DialogLink 5 (August 2006)

- Ability to resize images for easier incorporation into DialogLink Reports
- New settings allow users to be prompted to save Dialog search sessions in the format of their choice (Microsoft Word, RTF, PDF, HTML, or TEXT)
- Ability to set up Dialog Alerts by Chemical Structures and the addition of Index Chemicus as a structure searchable database
- Support for connections to STN Germany and STN Japan services

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```
? Help Log On Msg
           *** ANNOUNCEMENTS ***
                    ***
*** FREE FILE OF THE MONTH (April) Promt and Trade &
Industry
Database (Files 16 and 148)
Each month Dialog offers an opportunity to try out
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how to use the link and a list of files that contain the link.

NEW FILE
***File 651, TRADEMARKSCAN(R) - China. See HELP NEWS 651 for details.
RESUMED UPDATING
***File 523, D&B European Financial Records
***
RELOADS COMPLETED
***Files 154&155, MEDLINE(R)
***File 669, TRADEMARKSCAN(R) - Japan
***File 126, TRADEMARKSCAN(R) - United Kingdom
***File 228, TRADEMARKSCAN(R) - Spain
***File 672, TRADEMARKSCAN(R) - Germany
***File 655, TRADEMARKSCAN(R) - Korea
***File 656, TRADEMARKSCAN(R) - Australia
***File 657, TRADEMARKSCAN(R) - France
***File 673, TRADEMARKSCAN(R) - Italy
***
FILES RENAMED
***File 321, PLASPEC now known as Plastic Properties Database
***
FILES REMOVED
***File 301, CHEMNAME - please use File 398 ChemSearch
***File 388,PEDS: Defense Program Summaries
***File 588,DMS-FI Contract Awards

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```
 >>>http://www.dialog.com/whatsnew/.  You can find
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number>.    <<<

? Help Off Line
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352,369,370,484,553,570,608,620,613,621,623,624,634,6
35,636,647,696,674, 324, 344, 348, 349,
371,810,813,587
>>>W:          352 is unauthorized
1 of the specified files is not available
```

[File 9] **Business & Industry(R)** Jul/1994-2009/Apr 25
(c) 2009 Gale/Cengage. All rights reserved.

[File 15] **ABI/Inform(R)** 1971-2009/Apr 25
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[File 16] **Gale Group PROMT(R)** 1990-2009/Apr 07
(c) 2009 Gale/Cengage. All rights reserved.
**File 16: UD/banner does not reflect last processed date*

[File 20] **Dialog Global Reporter** 1997-2009/Apr 27
(c) 2009 Dialog. All rights reserved.

[File 47] **Gale Group Magazine DB(TM)** 1959-2009/Apr 17
(c) 2009 Gale/Cengage. All rights reserved.

[File 75] **TGG Management Contents(R)** 86-2009/Mar W5
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[File 80] **TGG Aerospace/Def.Mkts(R)** 1982-2009/Apr 03
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[File 88] **Gale Group Business A.R.T.S.** 1976-2009/Apr 24
(c) 2009 Gale/Cengage. All rights reserved.

[File 98] **General Sci Abs** 1984-2009/Apr
(c) 2009 The HW Wilson Co. All rights reserved.

[File 112] **UBM Industry News** 1998-2004/Jan 27
(c) 2004 United Business Media. All rights reserved.

File 112: This file is closed. For more recent UBM/CMP records, please search DIALOG Newsroom files.

[File 141] **READERS GUIDE** 1983-2009/MAR

[File 148] **Gale Group Trade & Industry DB** 1976-2009/Apr 14

File 148: The CURRENT feature is not working in File 148. See HELP NEWS148.

[File 160] **Gale Group PROMT(R)** 1972-1989

[File 275] **Gale Group Computer DB(TM)** 1983-2009/Apr 02

[File 264] **DIALOG Defense Newsletters** 1989-2009/Apr 27

[File 331] **Derwent WPI First View/UD=200923**

File 331: Due to update delays, First View updates 200910-200913 will be skipped to align update codes with WPI. There will be no data loss.

[File 340] **CLAIMS(R)/US Patent** 1950-09/Apr 23

[File 350] **Derwent WPIX** 1963-2009/UD=200925

[File 351] **Derwent WPI** 1963-2009/UD=200925

[File 369] **New Scientist** 1994-2009/Apr W2

[File 370] **Science** 1996-1999/Jul W3

File 370: This file is closed (no updates). Use File 47 for more current information.

[File 484] **Periodical Abs Plustext** 1986-2009/Apr W3

File 484: Despite the gap in UDs all content is present.

[File 553] **Wilson Bus. Abs.** 1982-2009/Apr

[File 570] **Gale Group MARS(R)** 1984-2009/Apr 07

[File 608] **MCT Information Svc.** 1992-2009/Apr 28

[File 620] **EIU:Viewswire** 2009/Apr 27

[File 613] **PR Newswire** 1999-2009/Apr 28

**File 613: File 613 now contains data from 5/99 forward. Archive data (1987-4/99) is available in File 813.*

[File 621] **Gale Group New Prod.Annou.(R)** 1985-2009/Mar 23

[File 623] **Business Week** 1985-2009/Apr 27

[File 624] **McGraw-Hill Publications** 1985-2009/Apr 28

[File 634] **San Jose Mercury** Jun 1985-2009/Apr 26

[File 635] **Business Dateline(R)** 1985-2009/Apr 25

[File 636] **Gale Group Newsletter DB(TM)** 1987-2009/Apr 07

[File 647] **UBM Computer Fulltext** 1988-2009/Feb W3

[File 696] **DIALOG Telecom. Newsletters** 1995-2009/Apr 27

[File 674] **Computer News Fulltext** 1989-2006/Sep W1

**File 674: File 674 is closed (no longer updates).*

[File 324] **GERMAN PATENTS FULLTEXT** 1967-200917

[File 344] **Chinese Patents Abs** Jan 1985-2006/Jan

[File 348] **EUROPEAN PATENTS** 1978-200916

[File 349] **PCT FULLTEXT** 1979-2009/UB=20090416|UT=20090409

[File 371] **French Patents** 1961-2002/BOPI 200209

[File 810] **Business Wire** 1986-1999/Feb 28

[File 813] **PR Newswire** 1987-1999/Apr 30

[File 587] **Jane`s Defense&Aerospace** 2009/Mar W5

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or GOLLA, P?)
>>>W:  One or more prefixes are unsupported
  or undefined in one or more files.
            10   AU=GOLLA PRASAD
             6   AU=GOLLA, PRASAD
            36   AU=GOLLA P?
            18   AU=GOLLA, P?
S1          36   AU=(GOLLA PRASAD  OR GOLLA, PRASAD OR
GOLLA P? OR GOLLA, P?)

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            36   S1
      24576954   DATA
       3025648   PLANE
         10235   DATA(2W)PLANE
      21830971   CONTROL
       3025648   PLANE
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        21778   CONTROL(2W)PLANE
S2          4   S S1 AND (DATA(2W)PLANE) AND
(CONTROL(2W)PLANE)

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>>>W:  Duplicate detection is not supported for File
112.
Duplicate detection is not supported for File 331.
Duplicate detection is not supported for File 340.
Duplicate detection is not supported for File 350.
Duplicate detection is not supported for File 351.
Duplicate detection is not supported for File 324.
Duplicate detection is not supported for File 344.
Duplicate detection is not supported for File 348.
Duplicate detection is not supported for File 349.
Duplicate detection is not supported for File 371.
Records from unsupported files will be retained in
the RD set.
S3          4   RD  (UNIQUE ITEMS)

?  TYPE S3/3,K/ALL
```

3/3,K/1 (Item 1 from file: 340) **Links**
Fulltext available through: Order File History


```
10811425   2005-0050136
E/DISTRIBUTED AND DISJOINT FORWARDING AND ROUTING SYSTEM AND
  METHOD
Inventors:Golla Prasad N (US)
Assignee: Unassigned Or Assigned To Individual
Assignee Code: 68000
Probable Assignee (A1): Alcatel CIT S A FR
Attorney, Agent or Firm: ALCATEL USA;INTELLECTUAL PROPERTY
DEPARTMENT, 3400
    W. PLANO PARKWAY, MS LEGL2, PLANO, TX, 75075, US

Publication               Application
                        Number     Kind Date       Number
Date
                    -------------- -- -------- -------------- ---
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                    US 20050050136 A1 20050303 US 2003651134
20030828
Priority Applic:                              US 2003651134
```

20030828

Document Type:
Inventors:**Golla Prasad N...**

Abstract: ...and method operable with a routing element having a scalable
cluster-based architecture, wherein the **control plane** and
data plane are loosely-coupled for effectuating
non-disruptive switchover in the event of a failure. The routing element
includes a partitionable **data plane** having one or more
forwarding tables and a partitionable **control plane** having
one or more routing tables operating under control of at least one routing
protocol...

Exemplary Claim:

D R A W I N G

1. A router, comprising: a partitionable **data plane**
including a plurality of forwarding tables, each forwarding table
including forwarding information for effectuating a data forwarding
process through said router; a partitionable **control plane**
including a plurality of routing tables operating under control of at
least one routing protocol...

...tables including information for effectuating routing decisions with
respect to said data forwarding process; a **control plane**
update agent module for maintaining a redundant set of routing table
information in at least one **control plane** update buffer,
wherein said **control plane** update agent module is operable
to synchronize said routing tables; and a **data plane**
update agent module operably coupled to said **control plane**
update agent module for coordinating said forwarding information with
said routing table information in association with a set of **data**
plane update buffers.

Non-exemplary Claims:

...in an event of failure based on information stored in at least

one
of said **data plane** update buffers and said **control plane** update buffer...

...in claim 2, wherein said event of failure comprises a failure associated
with said partitionable **data plane.**
...

...in claim 2, wherein said event of failure comprises a failure associated
with said partitionable **control plane.**
...

...5. The router as set forth in claim 2, wherein said partitionable
data plane comprises a plurality of **data plane** nodes, each having at least one forwarding table and at least one **data plane** update buffer...

...6. The router as set forth in claim 5, wherein said plurality of
data plane nodes are organized into a scalable cluster...

...7. The router as set forth in claim 5, wherein said **data plane** update agent module comprises a plurality of **data plane** update agents, each being associated with a **data plane** node...
...8. The router as set forth in claim 5, wherein said plurality of
data plane nodes are organized into a distributed network having a topology selected from the group consisting...

...9. The router as set forth in claim 2, wherein said partitionable
control plane comprises a plurality of **control plane** nodes, each having at least one routing table and at least
one **control plane** update buffer...

...10. The router as set forth in claim 9, wherein said plurality of
control plane nodes are organized into a scalable cluster
...

...11. The router as set forth in claim 9, wherein said **control plane** update agent module comprises a plurality of **control plane** update agents, each being associated with a **control plane** node...

...12. The router as set forth in claim 9, wherein said plurality of

control plane nodes are organized into a distributed network having a topology selected from the group consisting...

...tolerant routing element as set forth in claim 13, wherein said active node comprises a **control plane** node...
...tolerant routing element as set forth in claim 13, wherein said active node comprises a **data plane** node...

...operation of determining if said fault comprises a fatal fault involving said network element's **control plane.**
...

...operation of determining if said fault comprises a fatal fault involving said network element's **data plane.**
...

...21. A router, comprising: a plurality of **control plane** nodes for effectuating routing process functionality based on control updates from peer elements in a communications network, each **control plane** node including a routing information database, a **control plane** update buffer and a **control plane** update agent; and a plurality of **data plane** nodes for forwarding data based on said routing process functionality, each **data plane** node including a forwarding information database, a **data plane** update buffer and a **data plane** update agent, wherein said **data plane** update agents and **control plane** update agents operate to update said forward information databases and said routing information databases in...
...22. The router as set forth in claim 21, wherein said plurality of **control plane** nodes and said plurality of **data plane** nodes are organized in a logically disjoint, distributed architecture...

...24. The router as set forth in claim 22, wherein said **data plane** update buffers and said **control plane** update buffers are operable to be updated by said **data plane** update agents and said **control plane** update agents in an asynchronous manner...

...25. The router as set forth in claim 22, wherein said **data plane** nodes are operable to continue to forward data upon detecting a fault condition in at least one of said **control plane** nodes...

...distributed network as set forth in claim 26, wherein said router
comprises: a plurality of **control plane** nodes for effectuating routing process functionality based on control updates from
peer elements in said distributed network, each **control plane** node including a routing information database, a **control plane** update buffer and a **control plane** update agent; and a plurality of **data plane** nodes for forwarding data based on said routing process functionality,
each **data plane** node including a forwarding information database, a **data plane** update buffer and a **data plane** update agent, wherein said **data plane** update agents and **control plane** update agents operate to update said forward information databases and said routing information
databases in...

...28. The distributed network as set forth in claim 27, wherein said
plurality of **control plane** nodes and said plurality of **data plane** nodes are organized in a logically disjoint, distributed architecture...

...30. The distributed network as set forth in claim 27, wherein said
data plane update buffers and said **control plane** update buffers are operable to be updated by said **data plane** update agents and said **control plane** update agents in an asynchronous manner...

...31. The distributed network as set forth in claim 27, wherein said
data plane nodes are operable to continue to forward data upon detecting a fault condition in at least one of said **control plane** nodes.

3/3,K/2 (Item 1 from file: 350) **Links**
Fulltext available through: Order File History

0014837617 *Drawing available*
WPI Acc no: 2005-185317/200520
XRPX Acc No: N2005-154537
Fault tolerant routing method in virtual private network, involves carrying out continuous switch over from active node executing router process, to redundant node, on detection of fault in active node
Patent Assignee: ALCATEL (COGE); GOLLA P N (GOLL-I); ALCATEL LUCENT (COGE)
Inventor: **GOLLA P N**

Patent Family (3 patents, 34 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
EP 1511238	A2	20050302	EP 200418217	A	20040731	200520	B
US 20050050136	A1	20050303	US 2003651134	A	20030828	200520	E
EP 1511238	A3	20081203				200882	E

Priority Applications (no., kind, date): US 2003651134 A 20030828

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
EP 1511238	A2	EN	14	5	
Regional Designated States,Original	AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR				
EP 1511238	A3	EN			
Regional Designated States,Original	AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR				

Inventor: **GOLLA P N** Original Publication Data by AuthorityArgentina**Publication No.** Inventor name & address:**Golla, Prasad N**... ...**GOLLA P N**... ...**Golla, Prasad N** ...**Original Abstracts:**and method operable with a routing element having a scalable cluster-based architecture, wherein the **control plane** and **data plane** are loosely-coupled for effectuating non-disruptive switchover in the event of a failure. The routing element includes a partitionable **data plane** having one or more forwarding tables and a partitionable **control plane** having one or more routing tables operating under control of at least one routing protocol... ... and method operable with a routing element having a scalable cluster-based architecture, wherein the **control plane** and **data plane** are loosely-coupled for effectuating non-disruptive switchover in the event of a failure. The routing element includes a partitionable **data plane** having one or more forwarding tables and a partitionable **control**

plane having one or more routing tables operating under control of at least one routing protocol... ...**Claims:**What is claimed is:**1**. A router, comprising:a partitionable **data plane** including a plurality of forwarding tables, each forwarding table including forwarding information for effectuating a data forwarding process through said router;a partitionable **control plane** including a plurality of routing tables operating under control of at least one routing protocol... ... tables including information for effectuating routing decisions with respect to said data forwarding process;a **control plane** update agent module for maintaining a redundant set of routing table information in at least one **control plane** update buffer, wherein said **control plane** update agent module is operable to synchronize said routing tables; anda **data plane** update agent module operably coupled to said **control plane** update agent module for coordinating said forwarding information with said routing table information in association with a set of **data plane** update buffers.

3/3,K/3 (Item 1 from file: 351) **Links**
Fulltext available through: Order File History

0014837617 *Drawing available*
WPI Acc no: 2005-185317/200520
XRPX Acc No: N2005-154537
Fault tolerant routing method in virtual private network, involves carrying out continuous switch over from active node executing router process, to redundant node, on detection of fault in active node
Patent Assignee: ALCATEL (COGE); GOLLA P N (GOLL-I); ALCATEL LUCENT (COGE)
Inventor: **GOLLA P N**

Patent Family (3 patents, 34 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
EP 1511238	A2	20050302	EP 200418217	A	20040731	200520	B
US 20050050136	A1	20050303	US 2003651134	A	20030828	200520	E
EP 1511238	A3	20081203				200882	E

Priority Applications (no., kind, date): US 2003651134 A 20030828

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
EP 1511238	A2	EN	14	5	
Regional Designated States,Original	AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR				
EP 1511238	A3	EN			
Regional Designated States,Original	AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR				

Inventor: **GOLLA P N** Original Publication Data by AuthorityArgentina**Publication No.** Inventor name & address:**Golla, Prasad N**... ...**GOLLA P N**... ...**Golla, Prasad N** ...**Original Abstracts:**and method operable with a routing element having a scalable cluster-based architecture, wherein the **control plane** and **data plane** are loosely-coupled for effectuating non-disruptive switchover in the event of a failure. The routing element includes a partitionable **data plane** having one or more forwarding tables and a partitionable **control plane** having one or more routing tables operating under control of at least one routing protocol... ... and method operable with a routing element having a scalable cluster-based architecture, wherein the **control plane** and **data plane** are loosely-coupled for effectuating non-disruptive switchover in the event of a failure. The routing element includes a

partitionable **data plane** having one or more forwarding tables and a partitionable **control plane** having one or more routing tables operating under control of at least one routing protocol... ...**Claims:**What is claimed is:**1**. A router, comprising:a partitionable **data plane** including a plurality of forwarding tables, each forwarding table including forwarding information for effectuating a data forwarding process through said router;a partitionable **control plane** including a plurality of routing tables operating under control of at least one routing protocol... ... tables including information for effectuating routing decisions with respect to said data forwarding process;a **control plane** update agent module for maintaining a redundant set of routing table information in at least one **control plane** update buffer, wherein said **control plane** update agent module is operable to synchronize said routing tables; anda **data plane** update agent module operably coupled to said **control plane** update agent module for coordinating said forwarding information with said routing table information in association with a set of **data plane** update buffers.

3/3K/4 (Item 1 from file: 348) **Links**
Fulltext available through: Order File History

01859844

Distributed and disjoint forwarding and routing system and method
Verteiltes und disjunktes Weiterleiten und Routingsystem und Verfahren
Procede et systeme repartis et disjoint d'acheminement et de transmission

Patent Assignee:

- **Alcatel Lucent**; (7740790)
  54 rue La Boetie; 75008 Paris; (FR)
  (Applicant designated States: all)

Inventor:

- **Golla, Prasad N.**
  2601 Parkhaven Court; Plano,TX 75075; (US)
- **Golla, Prasad N...**
  ; ;

Legal Representative:

- **Dreiss, Fuhlendorf, Steimle & Becker (100861)**
  Patentanwalte Postfach 10 37 62; 70032 Stuttgart; (DE)

	Country	Number	Kind	Date	
Patent	EP	1511238	A2	20050302	(Basic)
	EP	1511238	A3	20081203	
Application	EP	2004018217		20040731	
Priorities	US	651134		20030828	

Designated States:
AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES;
FI; FR; GB; GR; HU; IE; IT; LI; LU; MC;
NL; PL; PT; RO; SE; SI; SK; TR;

Extended Designated States:
AL; HR; LT; LV; MK;

International Patent Class (V7): H04L-012/56

IPC	Level	Value	Position	Status	Version	Action	Source	Office
H04L-0012/56	A	I	F	B	20060101	20041217	H	EP

Abstract ...and method operable with a routing element having a scalable cluster-based architecture, wherein the **control plane** and **data plane** are loosely-coupled for effectuating non-disruptive switchover in the event of a failure. The routing element includes a partitionable **data plane** having one or more forwarding tables and a partitionable **control**

plane having one or more routing tables operating under control of at least one routing protocol...

Abstract Word Count: 118
NOTE: 1
NOTE: Figure number on first page: 1

Type	Pub. Date	Kind	Text

Publication: English
Procedural: English
Application: English

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200509	452
SPEC A	(English)	200509	4648
Total Word Count (Document A) 5101			
Total Word Count (Document B) 0			
Total Word Count (All Documents) 5101			

Specification: ...and method operable with a routing element having a scalable cluster-based architecture, wherein the **control plane** and **data plane** are loosely-coupled for effectuating non-disruptive switchover in the event of a failure.

In one aspect, the present invention is directed to a router that includes a partitionable **data plane** having one or more forwarding tables and a partitionable **control plane** having one or more routing tables operating under control of at least one routing protocol... ...for effectuating routing decisions with respect to the data forwarding process through the router. A **control plane** update agent module is provided for maintaining a redundant set of routing table information in at least one **control plane** update buffer, wherein the **control plane** update agent module is operable to synchronize the routing tables in the **control plane** in a time-based or event-based manner, or both. A **data plane** update agent module is operably coupled to the **control plane** update agent module for asynchronously coordinating the updating of the forwarding table information based on the routing table information in association with a set of **data plane** update buffers. In the event of a failure, the data forwarding process continues to proceed based on information stored in at least one of the **data plane** or **control plane** update buffers even as a switchover operation is underway in the router.

In one embodiment, the **data plane** and **control plane** update agent modules may be integrated into a single inter-plane updating mechanism disposed between... ...may be logically partitioned into a plurality of virtual partitions, each with one or more **data plane** nodes and one or more **control plane** nodes, respectively. The **data plane** nodal complex and the **control plane** nodal complex may each be organized into a separate scalable cluster-based network having any... ...topologies, or polyhedron topologies, to name a few. By way of an exemplary implementation, a **data plane** node may include one or more processing engines, one or more forwarding tables with associated update buffers and a **data plane** update agent. Likewise, a **control plane** node may include one or more control processors, one or more routing tables with associated update buffers and a **control plane** update agent.

In another aspect, the present invention is directed to a fault-tolerant routing ... ...an embodiment of the present invention;

FIG. 2A depicts a functional block diagram of a **data plane** (DP) node disposed as part of a scalable cluster of a plurality of nodes of... ...routing element shown in FIG. 1;

FIG. 2B depicts a functional block diagram of a **control plane** (CP) node disposed as part of a scalable cluster of a plurality of nodes of... ...and functionality of the routing element 100 may be logically segregated into two planes, a **control plane** (CP) 102A and a **data plane** (DP) 102B, that are loosely-coupled for effectuating routing decision-making functionality and data forwarding ... ...be a logical node in the sense of a partition or a part of the **data plane**, or a physical implementation, e.g., a line card in the ingress/egress of a... ...control block 208 is provided for transmitting and receiving update messages to and from other **data plane** nodes via path 210.

By way of example, as a **data plane** node, node 200 includes a forwarding agent that is operable to switch the incoming packets... ...signaling block 254 that is coupled to other CP nodes via path 256 when the **control plane** is active. In addition, the node-specific update agent 252 is operable to coordinate the... ...line card) is on the line card, and when a line card fails, the management**/control plane** decides which other line cards may take up the redistributed load (based on load balancing... ...that correspond to the control nodes 306-1 through 306-K.

The partitions of the **control plane** may be organized into multiple CP blades with redundancy, where a separate instance of each **control plane** process can run on each blade, one of the blades being active and the other... ...invention may also be realized by a router as follows:

A router, comprising: a partitionable **data plane** including a plurality of forwarding tables, each forwarding table including forwarding information for effectuating a data forwarding process through said router; a partitionable **control plane** including a plurality of routing tables operating under control of at least one routing protocol... ...tables including information for effectuating routing decisions with respect to said data forwarding process; a **control plane** update agent module for maintaining a redundant set of routing table information in at least one **control plane** update buffer, wherein said **control plane** update agent module is operable to synchronize said routing tables; and a **data plane** update agent module operably coupled to said **control plane** update agent module for coordinating said forwarding information with said routing table information in association with a set of **data plane** update buffers.

This router may have the following advantageous features or combinations of features:

said... ...in an event of failure based on information stored in at least one of said **data plane** update buffers and said **control plane** update buffer;

said event of failure comprises a failure associated with said partitionable **data plane**;

said event of failure comprises a failure associated with said partitionable **control plane**;

said partitionable **data plane** comprises a plurality of **data plane** nodes, each having at least one forwarding table and at least one **data plane** update buffer;

said plurality of **data plane** nodes are organized into a scalable cluster;

said **data plane** update agent module comprises a plurality of **data plane** update agents, each being associated with a **data plane** node;

said plurality of **data plane** nodes are organized into a distributed network having a topology selected from the group consisting... ...ring topologies, star topologies, Clos topologies, toroid topologies, hypercube topologies and polyhedron topologies;

said partitionable **control plane** comprises a plurality of **control plane** nodes, each having at least one routing table and at least one **control plane** update buffer;

said plurality of **control plane** nodes are organized into a scalable cluster;

said **control plane** update agent module comprises a plurality of **control plane** update agents, each being associated with a **control plane** node;

said plurality of **control plane** nodes are organized into a distributed network having a topology selected from the group consisting... ...may have the following advantageous features or combinations of features:

said active node comprises a **control plane** node;

said active node comprises a **data plane** node;

said active node forms a portion of a topological cluster comprising a plurality of... ...have the following advantageous features or combinations of features:

said router comprises: a plurality of **control plane** nodes for effectuating routing process functionality based on control updates from peer elements in said distributed network, each **control plane** node including a routing information database, a **control plane** update buffer and a **control plane** update agent; and a plurality of **data plane** nodes for forwarding data based on said routing process functionality, each **data plane** node including a forwarding information database, a **data plane** update buffer and a **data plane** update agent, wherein said **data plane** update agents and **control plane** update agents operate to update said forward information databases and said routing information databases in an asynchronous manner;

said plurality of **control plane** nodes and said plurality of **data plane** nodes are organized in a logically disjoint, distributed architecture;

said distributed architecture comprises a scalable... ...of ring topologies, star topologies, Clos topologies, toroid topologies, hypercube topologies and polyhedron topologies;

said **data plane** update buffers and said **control plane** update buffers are operable to be updated by said **data plane** update agents and said **control plane** update agents in an asynchronous manner;

said **data plane** nodes are operable to continue to forward data upon detecting a fault condition in at least'one of said **control plane** nodes.

Based upon the foregoing Detailed Description, it should be readily apparent that the present...

Claims: ...operation of determining if said fault comprises a fatal fault involving said network element's **control plane**.

3. The fault-tolerant routing method as set forth in claim 17, further comprising the operation of determining if said fault comprises a fatal fault involving said network element's **data plane**.

4. The fault-tolerant routing method as set forth in claim 17, wherein said updating... ...information is configurable based upon detecting said fault.

5. A router, comprising:

a plurality of **control plane** nodes for effectuating routing process functionality based on control updates from peer elements in a communications network, each **control plane** node including a routing information database, a **control plane** update buffer and a **control plane** update agent; and

a plurality of **data plane** nodes for forwarding data based on said routing process functionality, each **data plane** node including a forwarding information database, a **data plane** update buffer and a **data plane**'update agent, wherein said **data plane** update agents and **control plane** update agents operate to update said forward information databases and said routing information databases in... ...asynchronous manner.

6. The router as set forth in claim 21, wherein said plurality of **control plane** nodes and said plurality of **data plane** nodes are organized in a logically disjoint, distributed architecture.

7. The router as set forth... ...topologies and polyhedron topologies.

8. The router as set forth in claim 22, wherein said **data plane** update buffers and said **control plane** update buffers are operable to be updated by said **data plane** update agents and said **control plane** update agents in an asynchronous manner.

9. The router as set forth in claim 22, wherein said **data plane** nodes are operable to continue to forward data upon detecting a fault condition in at least one of said **control plane** nodes.

10. A distributed network, comprising:

a first network element operable to route data; and...

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